

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("5518528").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/07 11:45
L2	0	l1 and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:46
L3	0	l1 and permea\$5	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:46
L6	7	((("5082481") or ("5518528") or ("6089027") or ("6746645") or ("6491866") or ("6193929") or ("5653951"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/07 11:48
L7	2	L6 and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:48
L8	2	L6 and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:48
L9	1	L7 and L8	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:48
L10	1	("6089027").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/07 11:56
L11	1	l10 and decomp\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:56
L12	93	("1659263"   "1679826"   "2047339"   "2354283"   "2502588"   "2553486"   "2615287"   "2707484"   "2793504"   "3388962"   "3590860"   "3699998"   "3791412"   "3972346"   "3994674"   "4173986"   "4485739"   "4624443"   "4694860"   "4744221"   "4793379"   "4836242"   "5230359"   "5233837"   "5289690"   "5303734"   "5409526"   "5518528"	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:56

		"5547229"   "5566713"   "5595209"   "5645192"   "5673562"   "5678602"   "5685159"   "5692381"   "5694975"   "5752544"   "5762086"   "5901557"). PN. OR ("6089027").URPN.				
L13	0	l10 and collect\$4	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 11:57
L14	1	l10 and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:00
L15	11	l12 and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:01
L16	2	l12 and membrane and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:05
L17	3	((("5518528") or ("5704965") or ("5704967")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/07 12:06
L18	0	l17 and membrane and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:06
L19	4490840	@ad< "20031014"	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:14
L20	4	l19 and membrane and sorbate with (adsor\$7 and decomp\$7)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:15
L21	15	l19 and membrane with gas with permea\$7 and sorbate with adsor\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:20
L22	12	l19 and membrane with (hydrogen or gas) with permea\$7 and (sorbate or silane or germane or stibine or diborane) with adsor\$7 and decomp\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:23
L23	856	l19 and (sorbate or silane or germane or stibine or diborane) with adsor\$7 and (hydride or silica or carbon near2 sieve or alumina or macroreticulate or kieselguhr or aluminosilicate or membrane near2 hydrogen or perfluorosulfonic)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:38

L24	159	I19 and (sorbate or silane or germane or stibine or diborane) with adsor\$7 and hydride	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:38
L25	18	I19 and (sorbate or silane or germane or stibine or diborane) with adsor\$7 and hydride and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:38
L26	0	I19 and sorbate and (silane or germane or stibine or diborane) with adsor\$7 and hydride and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:39
L27	6	I19 and sorbate with adsor\$7 and hydride and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:39
L28	1	I1 and (hydride or silica or carbon near2 sieve or alumina or macroreticulate or kieselguhr or aluminosilicate or membrane near2 hydrogen or perfluorosulfonic)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:40
L29	11067465	@pd< "20021014"	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:41
L30	7	(US-20040187683-\$).did. or (US-5518528-\$ or US-6716271-\$ or US-6132492-\$ or US-6110257-\$ or US-6101816-\$ or US-6089027-\$).did.	US-PGPUB; USPAT	ADJ	ON	2009/09/07 12:42
L31	5	I30 and I29	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:42
L32	4	I31 and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:43
L33	0	I31 and membrane with decomp\$5	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:45
L34	1	I31 and membrane with decomp\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:45
L35	41	(carruthers or arno).in. and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:49
L36	5	(carruthers or arno).in. and sorbate and I29	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 12:49

L37	2	I30 and membrane not I31	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:08
L38	2	((("6214089") or ("6224677"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/07 13:13
L39	1	I38 and (sorbate or membrane)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:14
L40	1	I38 and (sorbate or silane or germane or stibine or diborane)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:14
L41	5	I31 and hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:16
L42	15	I19 and sorbate with (adsor \$7 or desor\$7) and (generat\$7 or collect\$4) with hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:18
L43	3	((("3720042") or ("4077779"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/07 13:23
L44	0	I43 and sorbate and hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:23
L45	0	I19 and sorbic with (adsor \$7 or desor\$7) and (generat\$7 or collect\$4) with hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:24
L46	197	I19 and sorb\$3 with (adsor \$7 or desor\$7) and (generat\$7 or collect\$4) with hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:24
L47	182	I19 and sorb\$3 with (adsor \$7 or desor\$7) and (generat\$7 or collect\$4) with hydrogen not I42	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:24
L48	27	I19 and sorb\$3 near2 gas with (adsor\$7 or desor\$7) and (generat\$7 or collect \$4) with hydrogen not I42	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:25
L49	9	(US-20040187683-\$ or US- 20020112479-\$).did. or (US-5518528-\$ or US- 6716271-\$ or US-6132492- \$ or US-6110257-\$ or US- 6101816-\$ or US-6089027- \$ or US-4705541-\$).did.	US-PGPUB; USPAT	ADJ	ON	2009/09/07 13:34
L50	7	I49 and dispens\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:34

L51	7	(US-20020112479-\$).did. or (US-5518528-\$ or US- 6132492-\$ or US-6110257- \$ or US-6101816-\$ or US- 6089027-\$ or US-4705541- \$).did.	US-PGPUB; USPAT	ADJ	ON	2009/09/07 13:35
L52	5	I51 and dispens\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:35
L53	1	I1 and decomp\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 13:55
L54	1	("6132492").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/07 14:03
L55	1	I54 and (stor\$4 or dispens \$4 or decomp\$4 or membrane or hydrogen)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:03
L56	1	I54 and hydride same (silane or germane or stibine or diborane)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:27
L57	1	I54 and (silica or sieve or alumina or macroreticulate or kieselguhr or carbon or aluminosilicate)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:31
L58	0	I54 and perfluorosulfonic	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:34
L59	0	I54 and modif\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:34
L60	1	I54 and (phosphoric or dope \$4)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:35
L61	1	I54 and (phosphor\$4 same2 dope\$4)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:36
L62	0	I54 and fuel cell	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:37
L64	1	I54 and pressure	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:43
L65	1	I54 and pressure and heat \$4	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:48
L66	1	I54 and room temperature	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:53

L67	1	I54 and temperature	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:53
L68	0	I54 and temperature with decompos\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:54
L69	0	I54 and temperature same decompos\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:54
L70	0	I54 and temperature same decomp\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:54
L71	1	I54 and temperature same3 decomp\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:54
L72	1	I54 and hydrogen with metal	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:55
L73	1	I54 and hydrogen same metal	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:56
L74	1	I54 and hydrogen with decomp\$7 same hydride	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:56
L75	1	I54 and (silicon or germanium or boron or antimony)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 14:59
L76	7	(US-20020112479-\$).did. or (US-5518528-\$ or US- 6132492-\$ or US-6110257- \$ or US-6101816-\$ or US- 6089027-\$ or US-4705541- \$).did.	US-PGPUB; USPAT	ADJ	ON	2009/09/07 15:04
L77	0	I76 and perfluorosulfonic	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:04
L78	0	I76 and \$3fluro\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:05
L79	0	I76 and \$3fluoro\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:05
L80	0	I76 and boric acid	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:11
L81	0	I19 and boric acid with dop \$3 with carbon with adsor \$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:13
L82	1	boric acid with dop\$3 with carbon with adsor\$7	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:13

L83	4	boric acid with dop\$3 with (adsor\$7 or sorb\$4)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:14
L84	2422	boric acid with (adsor\$7 or sorb\$4) not l83	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:15
L85	22	l19 and boric acid with (adsor\$7 or sorb\$4) with carbon not l83	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:15
L86	1	l19 and boric acid with (adsor\$7 or sorb\$4) with carbon and (generat\$7 or collect\$4) with hydrogen not l83	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:16
L87	417	l19 and boric acid with (adsor\$7 or sorbent) not l83 not l85	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:19
L88	22	l19 and boric acid with (adsor\$7 or sorbent) and hydrogen with (collect\$4 or generat\$4) not l83 not l85	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:19
L89	952	l19 and perfluorosulfonic with membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:27
L90	374	l19 and perfluorosulfonic with membrane and (generat\$4 or collect\$4) with hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:27
L91	282	l19 and perfluorosulfonic with membrane and (generat\$4 or collect\$4) with hydrogen and membrane with hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:27
L92	282	l19 and perfluorosulfonic with membrane and (generat\$4 or collect\$4) with hydrogen and membrane with hydrogen not (vinegar or wellington). in.	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:27
L93	49	l19 and perfluorosulfonic with membrane with hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:28
L94	0	l19 and perfluorosulfonic with membrane with hydrogen and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:28
L95	0	l19 and perfluorosulfonic with membrane and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:28

L96	0	119 and perfluorosulfonic with membrane and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:28
L97	18	119 and perfluorosulfonic with membrane and (sorbate or silane or germane or stibine or diborane)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:28
L98	0	119 and perfluorosulfonic with membrane with hydrogen and (sorbate or silane or germane or stibine or diborane)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:29
L99	0	119 and perfluorosulfonic with membrane same (sorbate or silane or germane or stibine or diborane)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:29
L100	6	119 and perfluorosulfonic with membrane with hydrogen not fuel cell	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:33
L101	1	176 and fuel cell and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:40
L102	678	423/658.2.ccls. or 422/243.ccls.	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:53
L103	12	(advance technology materials.as. or (carruthers or arno).in.) and sorbate and membrane and hydrogen	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/09/07 15:54
S1	1	("20070031325").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/06/29 15:49
S2	3	((("5082481") or ("5518528") or ("6089027"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/06/29 16:08
S3	7	((("5082481") or ("5518528") or ("6089027") or ("6746645") or ("6491866") or ("6193929") or ("5653951"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/06/29 16:08
S4	2	S3 and sorbate	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/06/29 16:08
S5	2	S3 and membrane	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/06/29 16:09



S6	1	("6089027").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/06/29 16:19
S7	1	S6 and sorbate same adsor \$5	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/06/29 16:19
S8	1	("5518528").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/06/29 16:20
S9	1	S8 and sorbate same adsor \$5	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/06/29 16:20
S10	1	S8 and sorbate same3 adsor\$5	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/06/29 16:21
S11	1	S8 and decompos\$5	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/06/29 16:21
S12	1	S8 and sorbate same2 adsor\$5 and decompos\$5	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/06/29 16:21

9/ 7/ 2009 4:04:10 PM

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